

The Relative Risk of Driver Distractions

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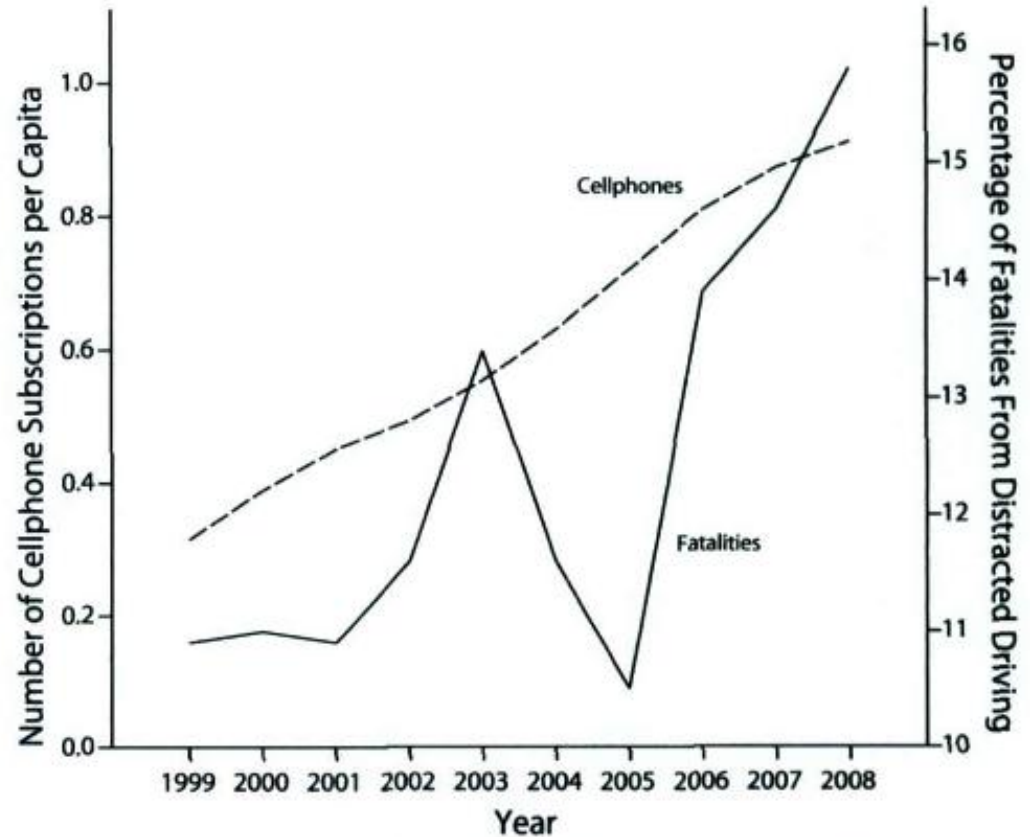


Forum on Attentive Driving: Countermeasures for Distraction
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What is the Contribution of Distraction to U.S Traffic Fatalities?

Distracted fatalities increased from 10.9% (4563) to 15.8% (5870) of total fatalities (FARS) from 1999 to 2008.

Multiple regression analysis predicts that 16,141 additional distracted driving fatalities resulted from increases in texting volume for the years 2002 to 2007.



NHTSA (2009)

Wilson & Stimpson (2010)

What Evidence Is Produced by Each Method?

Method or Approach	Focus of Analysis
Epidemiology	Crashes, Fatalities, Injuries
Naturalistic Observation	Crash, Near Crash, Behaviour
Driving Simulation	Performance
Laboratory	Abstract Task Performance

Which Distractions Contribute to Crashes?

Driver Distraction Category	1995 to 1999	2000 to 2003
Outside person, object, or event	29.4 (2.4)	23.7*
Adjusting radio/cassette/CD	11.4 (3.7)	2.9
Other occupant	10.9 (1.7)	20.8
Moving object in vehicle	4.3 (1.6)	3.7
Other device/object	2.9 (0.8)	5.2**
Adjusting vehicle/climate controls	2.8 (0.6)	1.5
Eating/drinking	1.7 (0.3)	2.8
Talking/listening/dialing cell phone	1.5 (0.5)	3.6
Smoking related	0.9 (0.2)	1.0
Other distraction	25.6 (3.1)	34.8***
Unknown distraction	8.6 (2.7)	
Total	100.00	100.00

Stutts et al. (2001; 2005) Milloy & Caird (2011)

Why Does Cell Phone Conversation (or Other In-vehicle Tasks) Affect Driving Performance?

Reaction time	Increase, 0.25 seconds
Speed	Decreases not found
Headway	Increases not found
Lane keeping	No effect
Eye movements	Insufficient studies
Missed events	Insufficient studies